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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,276	09/24/2003	Stephen B. Roscoe	58917US002	6568
32692	7590	05/16/2007		
3M INNOVATIVE PROPERTIES COMPANY			EXAMINER	
PO BOX 33427			SIEFKE, SAMUEL P	
ST. PAUL, MN 55133-3427			ART UNIT	PAPER NUMBER
			1743	
			NOTIFICATION DATE	DELIVERY MODE
			05/16/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

**Application No.**

10/669,276

**Applicant(s)**

ROSCOE ET AL.

**Examiner**

Samuel P. Siefke

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18, 20, 42, 43 and 45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18, 20, 42, 43 and 45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### Status

This Office Action is in response to the amendment and arguments presented on 2/28/07. Claims 1-18, 20, 42-43 and 45 are currently pending in the instant application.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-18, 20, 42, 43, 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mak et al. (USPN 5,490,415) in view of Bennett, Jr. et al. (USPN 4,511,534).

Mak teaches a diffusion test apparatus that comprises a first base (22) having a plurality of hollow projections (30) extending outwardly from a first surface (12), each hollow projection having a tapered tip (see fig. 2, ref. 26) with an opening (28) therein and a respective cavity contiguous with the opening disposed within the projection (fig. 2); a second base (36) having a first surface having a plurality of recessed tapered openings therein adapted to engage the plurality of hollow projections; a membrane contacting the recess tapered openings and the tips of the hollow projections, the first base being fastened to the second base by fasteners (14). The first base and the second base are transparent because they can be made from glass (col. 6, lines 37-39). The fastener means 14 is removable when the membrane is changed. The hollow projections extend through the first base and form an opening at the second surface of the first base (fig. 2 and 3). Regarding claim 5, a first covering means fastened to the second surface of the second base can be seen as plugs 48 that are inserted into the openings 38. Regarding claim 8, the bottom of the first base 22 is an equivalent to the cover 578 of the instant application in that it closes the openings in the first base. The cover plate (bottom of first base) is transparent because it is made from glass. The

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tapered tips have a beveled proportion (fig. 2). The membrane composition is discussed in column 6, lines 43-50 and can be a synthetic membrane (polymeric), animal, skin, etc.

Mak does not teach a retaining plate for retaining the membrane to the second base.

Bennett teaches a liquid transfer device that comprises a second base 32 and a retaining plate 42 which holds a membrane to the second base 32 by removable fasteners 42 as seen in figure 2-4. Bennett provides this configuration for quick and easy movement of liquid from one container to the next. It would have been obvious to one having an ordinary skill in the art at the time of the invention of modify Mak to employ a retaining plate to hold the membrane to the second base (4) to allow for easy removal of the second base and membrane together in order to gain access to the diffused liquid in the first base (6) in one step. This would reduce the number of steps a user would incur to gain access to the diffused liquid and decrease fumbling around with expired membrane (contaminated) being separate from the second base. Mak is only interested in the diffused liquid that remains in the first base (6) as seen in col. 3, lines 45-49 because the sample is thereafter analyzed by conventional scintillation counting techniques.

Claims 1-18, 20, 42, 43, 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mak et al. (USPN 5,490,415) in view of Grass (USPN 5,591,636).

Mak teaches a diffusion test apparatus that comprises a first base (22) having a plurality of hollow projections (30) extending outwardly from a first surface (12), each

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hollow projection having a tapered tip (see fig. 2, ref. 26) with an opening (28) therein and a respective cavity contiguous with the opening disposed within the projection (fig. 2); a second base (36) having a first surface having a plurality of recessed tapered openings therein adapted to engage the plurality of hollow projections; a membrane contacting the recess tapered openings and the tips of the hollow projections, the first base being fastened to the second base by fasteners (14). The first base and the second base are transparent because they can be made from glass (col. 6, lines 37-39). The fastener means 14 is removable when the membrane is changed. The hollow projections extend through the first base and form an opening at the second surface of the first base (fig. 2 and 3). Regarding claim 5, a first covering means fastened to the second surface of the second base can be seen as plugs 48 that are inserted into the openings 38. Regarding claim 8, the bottom of the first base 22 is an equivalent to the cover 578 of the instant application in that it closes the openings in the first base. The cover plate (bottom of first base) is transparent because it is made from glass. The tapered tips have a beveled proportion (fig. 2). The membrane composition is discussed in column 6, lines 43-50 and can be a synthetic membrane (polymeric), animal, skin, etc.

Mak does not teach a retaining plate for retaining the membrane to the second base.

Grass teaches a membrane holder that comprises an upper base 14, a retaining plate 18 and a lower base 16. A membrane is placed between the upper base and the retaining plate 18 and held together by means of a threaded connection between the

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upper base and the retaining plate (col. 3, lines 44-50). The retaining plate is attached to the base plate by bolts 20. It would have been obvious to one having an ordinary skill in the art at the time of the invention to modify Mak to employ a retaining plate to hold the membrane to the second base (4) to allow for easy removal of the second base and membrane together in order to gain access to the diffused liquid in the first base (6) in one step. This would reduce the number of steps a user would incur to gain access to the diffused liquid and decrease fumbling around with expired membrane (contaminated) being separate from the second base. Mak is only interested in the diffused liquid that remains in the first base (6) as seen in col. 3, lines 45-49 because the sample is thereafter analyzed by conventional scintillation countering techniques.

### ***Response to Arguments***

Applicant's arguments filed 2/28/07 have been fully considered but they are not persuasive. Applicant argues, "Mak is explicitly intended for single use" and therefore teaches away from combining with Bennett to allow for moving the membrane and second base to another first base to measure diffusion across the membrane with a second liquid." The Examiner maintains that it would be desirable to retain the membrane that is being sampled on the second base (4) when the diffusion reaction is expired because when the end point has come a user disassembles the assembly by removing the clasp 14 and removes the second base (4) and the membrane to gain access to the liquid that has diffused through the membrane and into the first base (6). It would have been obvious to one having an ordinary skill in the art at the time of the

invention to employ a retaining plate to hold the membrane to the second base (4) to allow for easy removal of the second base and membrane together to gain access to the diffused liquid in the first base (6) in one step instead of fumbling around with the membrane being separate from the second base.

Applicant argues, "it is still submitted that adding a retaining plate to the device of Mak would have no purpose and would add unneeded complexity." The Examiner disagrees with the Applicant's statement because the modified Mak given the motivation to employ a retaining plate describes the Applicant's invention. If the Applicant intends to make this statement regarding modified Mak, then the instant application has unneeded complexity and has no purpose. The modified Mak teaches all the necessary structures that make it structurally capable of performing the instant invention.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P. Siefke whose telephone number is 571-272-1262. The examiner can normally be reached on M-F 7:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 571-272-1700. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.




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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sam P. Siefke



May 11, 2007



Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700